

Amendments to the Claims

Claim 1(Previously presented). A method for making narrow size distribution nanoscale powders comprising:

selecting a precursor mixture wherein the mixture comprises at least one metal containing precursor;

the metal containing precursor has an average molecular weight of less than 2000 grams per unit mol of the metal;

the metal containing precursor has a normal boiling point greater than 350K;

a viscosity of the precursor mixture is between 0.1 to 250 cP;

processing the precursor mixture under conditions that produce nanoscale powder from the precursor mixture;

wherein the processing is conducted in a flow reactor system such that the axial velocity, axial length and axial dispersion coefficient in the flow reactor system yield a plug flow index of more than 50; and

quenching the nanoscale powder using Joule Thompson quench.

Claim 2(Previously presented). The method of claim 1 wherein the metal content in the precursor mixture is greater than 22% by weight.

Claim 3(Original). The method of claim 1 wherein the act of processing the precursor mixture comprises reacting the precursor mixture with oxygen.

Claim 4(Original). The method of claim 3 wherein heat released during the precursor mixture's reaction with oxygen is on average greater than 1 kJ per liter of precursor mixture.

Claim 5(Cancelled).

Claim 6(Original). The method of claim 1 wherein the precursor mixture comprises at least two metal containing precursors.

Claim 7(Original). The method of claim 1 wherein the precursor mixture comprises water.

Claim 8(Original). The method of claim 1 wherein the precursor mixture comprises a hydrocarbon.

Claim 9(Previously presented). The method of claim 1, wherein the precursor mixture comprises an acetate.

Claims 10-19(Cancelled).

Claim 20(Previously presented). The method of claim 1, wherein the precursor mixture comprises an alkanoate.

Claim 21(Previously presented). A product comprising of nanoscale powders prepared by the method of claim 1.

Claim 22(Previously presented). The method of claim 1 wherein the axial velocity, axial length and axial dispersion coefficient in the flow reactor system yield a plug flow index of more than 500.

Claim 23(Previously presented). A method for making narrow size distribution nanoscale powders comprising:

- selecting a precursor mixture wherein the mixture comprises at least one metal containing precursor;

- the metal containing precursor has a normal boiling point greater than 350K;

- a viscosity of the precursor mixture is between 0.1 to 250 cP;

- processing the precursor mixture under conditions that produce nanoscale powder from the precursor mixture; and

wherein the processing is conducted in a flow reactor system such that the axial velocity, axial length and axial dispersion coefficient in the flow reactor system yield a plug flow index of more than 50.

Claim 24(New). The method of claim 1 wherein the precursor mixture comprises an organic chemical.

Claim 25(New). The method of claim 23 wherein the precursor mixture comprises an organic chemical.

Claim 26(New). The method of claim 23 wherein the precursor mixture comprises water.